



Ministry of
Transportation
and Infrastructure

ELECTRICAL AND TRAFFIC ENGINEERING MANUAL

Appendix 800.2

Generic Signing Special Provisions

GENERIC SIGNING SPECIAL PROVISIONS

PROJECT NO.

TITLE

LOCATION

Note to Writer - Where the contract is a standalone signing contract then obtain latest general special provisions from:

<https://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/contracting-to-transportation/tender-contract-documentation>

and add these signing special provisions as required.

PART 1 - GENERAL

1.01 SCOPE OF SIGNING WORK

The work generally involves, but is not limited to the following:

- a) Installation of signing;
- b) Removal of existing signing equipment;

1.02 STANDARD SPECIFICATIONS

The most recent Edition of the Standard Specifications for Highway Construction applies to this contract.

1.03 MATERIAL SUPPLIED BY THE CONTRACTOR

The Contractor supplies all materials for signing projects.

1.04 RECORD DRAWINGS

The Contractor shall record on a current set of plans, in a neat manner, all changes, additions and deletions to reflect the "as constructed" installation. This shall include the location of equipment as installed. This set of plans shall be returned to the Ministry Representative at the completion of the installation and prior to the issuance of a Completion Certificate in accordance with Article 26.00 of the Construction Agreement.

All costs related to record drawings will be included in the various pay items of work involved in the contract. No additional compensation will be made.

1.05 COORDINATION OF WORK

The Contractor shall co-ordinate the signing work to the satisfaction of the Ministry Representative to ensure that all existing signing is maintained until the new signing is installed.

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The Contractor shall contact the local Road and Bridge Maintenance Contractor and the Electrical Maintenance Contractor to ensure no conflicts exist in each other's work schedule.

All costs related to co-ordination of work will be included in the various pay items of work involved in the contract. No additional compensation will be made.

1.07 REMOVAL OF ASPHALT AND PATCHING

The Contractor shall remove all asphalt required to accommodate the installation of the concrete bases. This shall be above and beyond the asphalt removed as part of the general pavement removal.

Payment for the removal of pavement to accommodate the installation of bases will be made at the applicable Unit Price.

All temporary patching shall be considered incidental. No separate payment will be made.

Payment for any permanent patching will be paid under the roadworks units for asphalt.

1.08 REMOVAL OF EXISTING SIGNING EQUIPMENT

The Contractor shall remove existing signing equipment as shown on the Plans, or as directed by the Ministry Representative.

The Contractor must obtain permission from the Ministry Representative prior to removing any signing equipment.

Removal of existing signing equipment shall include:

EXAMPLE - Writer to Select & Modify

- a) The removal, disassembly, pick-up, delivery and off-loading of any breakaway, wood post, perforated square steel tubing, round steel post sign structures, signs, delineators and any signing devices (as noted on the plans) **Writer to select location and address**. This shall include the supply and installation of 25mm well graded base course aggregate material to fill the holes. The excavation and backfill shall meet the requirements but not the payment provisions of Subsection 635.07.01.

Prior to construction the Contractor shall provide the Ministry Representative with an itemised spreadsheet of all items removed and returned to the designated Works Yard. Prior to returning any equipment the Contractor shall confirm the exact quantity of each item being returned.

Payment for the removal of existing signing equipment will be made at the Contract lump sum price bid listed under Schedule Item **(X)**.

1.09 CANTILEVER AND SIGN BRIDGE STRUCTURES

The Contractor shall supply and install Cantilever and Sign Bridge structures as noted on the Plans and the Ministry Material Standards Chapter 306 - Cantilever and Sign Bridge Structures. Cantilever and sign bridge manufacturers must be pre-qualified and listed on the "Ministry Recognized Product List". A copy of the current Ministry "Recognized Product List" can be found at:

<https://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/engineering-standards-guidelines/recognized-products-list>

Anchor bolt cages shall be designed and supplied by the Sign Structure manufacturer to suit the concrete base design.

The contractor shall provide the Ministry Representative with signed and sealed drawings structural drawings as indicated in sub-paragraph 306.8.1 of the Ministry Electrical and Signing Materials Standards. This document can be found at:

http://www.th.gov.bc.ca/publications/eng_publications/electrical/electrical_and_traffic_eng/2003_material_standards/volume_1/2003_material_standards-volume_1.pdf

Cantilever and sign bridge structures must be assigned a unique 5-digit number and name as described in the Ministry Electrical and Traffic Engineering Manual, Section 503. This document can be found at:

http://www.th.gov.bc.ca/publications/eng_publications/electrical/electrical_and_traffic_eng/Electrical_Signing_Design_Manual/tableofcontents.htm

The Contractor shall be responsible for all aspects of the design, supply and installation of the Cantilever or Sign Bridge structures. All required submissions and notification shall be co-ordinated by the contractor.

All components shall be handled with care to prevent stress to the components through bending or twisting. A nylon sling with a minimum of two pick-up points shall be used to transport and erect components. Steel chains or lifting by a single member will not be permitted. Any damage to the components through over-stress, scratching or denting shall be repaired or replaced at the Contractor's expense to the satisfaction of the Ministry Representative.

Misaligned flanges shall be shimmed as necessary for proper alignment without stressing the joint before final tightening.

All nuts and bolts shall be tightened as per the manufacturer's specifications.

Payment for the design and installation of each Cantilever or Sign Bridge Structures will be made at the contract lump sum price bid for that structure listed under Schedule Item **(X)** and shall include all cost required to design,

supply and install the structures including all wiring, sign lighting, the installation of signs and supply of anchor bolt cages.

Payment for the installation of anchor bolt cages shall be included in the contract lump sum price bid for the concrete base(s) for the structures.

1.10 CONCRETE BASES FOR SIGN BRIDGE AND CANTILEVER STRUCTURES

Concrete bases for Sign Bridge and Cantilever Structures shall meet the requirements of Subsection 635.07. Shoring of excavations where directed by the Ministry Representative to avoid the cutting of existing asphalt, curbs and sidewalks will be paid by force account.

Upon installation of the anchor bolt cage, prior to pouring the base, the Contractor shall measure the anchor bolt circle in accordance with the Manufacturer's Shop Drawings. Any discrepancies shall be reported immediately to the Ministry Representative prior to pouring concrete.

Payment for each concrete base will be made at the contract lump sum price bid for that concrete base or pair of bases listed under Schedule Item (X) and shall include all costs for the assembly and installation of the anchor bolt cages.

1.11 RAISED PAVEMENT MARKINGS (RPM'S)

The Contractor shall supply and install all reflectors on concrete barriers as noted on the Plans and the Ministry Pavement Marking Manual.

Where reflectors are required on the road surface they shall be supplied and installed along with the permanent paint markings by the Ministry Centreline Crew.

All costs for the supply and installation of temporary reflectors and paint markings shall be borne by the contractor.

The reflectors shall be installed on barriers with an epoxy adhesive. The concrete barrier surface shall be clean and dry prior to reflector installation. Epoxy adhesive shall be applied as per manufacturer's instructions. Reflectors shall securely attach to barriers to the satisfaction of the Ministry Representative.

Payment for the supply and installation of reflectors on barriers will be made at the contract unit price bid for each reflector listed under Schedule Item (X).